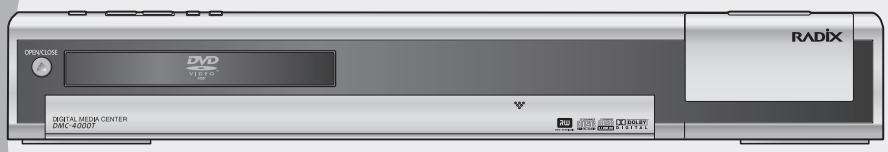
RADIX

User's Guide
DMC-4000T



DVD+ReWritable COMPACT DISC DIGITAL AUDIO COMPACT DISC DIGITAL VIDEO DOLBY DIGITAL

Digital Media Center with Built-in HDD and DVD Recorder

This Digital Media Centre (or DMC) has been manufactured to satisfy international safety standards. Please read the following recommended safety precautions carefully.

MAINS SUPPLY: AC 95-250V~, 50/60Hz
Operate this DMC only from the type of power supply indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company. Disconnect the product from the mains before you start any maintenance or installation procedures.

OVERLOADING: Do not overload wall outlets, extension cords or adapters as this can result in fire or electrical shock.

LIQUIDS: Keep liquids away from the DMC.

CLEANING: Before cleaning, disconnect the DMC from the wall socket. Use a cloth lightly dampened with water (no solvents) to clean the exterior.

VENTILATION: Do not block the DMC ventilation holes. Ensure that free airflow is maintained around the DMC. Never store the DMC where it is exposed to direct sunlight or near heating equipment (e.g. a radiator). Never stack other electronic equipment on top of the DMC. Place the DMC at least 30mm from the wall.

ATTACHMENTS: Do not use any attachment that is not recommended by the manufacturer; it may cause a hazard or damage to the equipment.

CONNECTION TO THE SIGNAL CABLE AND TV: Connect all components before plugging any power cords into the wall outlet. Always turn off the DMC, TV, and other components before you connect or disconnect any cables.

SERVICING: Do not attempt to service this product yourself. Any attempt to do so will make the warranty invalid. Refer all servicing to a qualified service agent.

LIGHTNING: If the DMC is installed in an area subject to intense lightning activity, protection devices for the DMC mains connector and antenna are essential. The individual manufacturer' s instruction for safeguarding other equipment, such as TV, Hi-Fi, etc., connected to the DMC must also be followed during lightning storms.

REPLACEMENT of PARTS: When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorised substitution may result in additional damage to the unit.

HANDLING: Do not move the DMC while a disc is being played, or the disc may be scratched or broken, the DMC's internal parts may be damaged.
- Be careful not to put your hand into the disc tray.
- Do not place anything other than the disc in the disc tray.
- Be sure to remove the disc and turn off the DMC after use.
- Disconnect the AC power cord from the AC outlet when you don't intend to use the DMC for long periods of time.
- Clean the disc by wiping in a straight line from the inside to the outside of the disc.

HDD (Hard Disk Drive)

The hard disk has a high storage density, which enables long recording durations and quick access to written data. However, it can easily be damaged by shock, vibration or dust and should be kept away from magnets. To avoid losing important data, observe the following precautions.

- Do not use the DMC in a place subject to extreme changes in temperature.
- Do not apply a strong shock to the DMC.
- Do not place the DMC in a location subject to mechanical vibrations or in an unstable location.

Disc Handling

- Use discs with regular shapes. If an irregular disc (a disc with a special shape) is used, this DMC may be damaged.

Cautions on handling discs

- Avoid touching the surface of a disc where recording is performed.
- Do not write on the printed side with a ball-point pen or pencil.
- Do not use record cleaning sprays or antistatic. Also, do not use volatile chemicals, such as benzene or thinner.
- Do not apply labels or stickers to discs. (Do not use discs fixed with exposed tape adhesive or leftover peeled-off stickers.)
- Do not use scratch-proof protectors or covers.
- Do not use discs printed with label printers available on the market.
- Do not load warped or cracked discs.

Disc Storage

Be careful not to harm the disc because the data on these discs is highly vulnerable to the environment.

- Do not keep under direct sunlight.
- Keep in a cool ventilated area.
- Store vertically.
- Keep in a clean protection jacket.
- If you move your DMC suddenly from a cold place to a warm place, condensation may generate on the operating parts and lens and cause abnormal disc playback. If this occurs, remove the disc and wait for one to two hours with the power on before attempting playback.

■ Only for DVD player

1. CAUTION

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. The DVD player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the exterior.

2. Supported disc formats

The following discs can be used in your DVD.

Note:

Supported discs could be different with the following disc.

- **DVD Video** (Digital Versatile Disc)
- **Super Video CD**
- **Re (writable) DVD**
- **Video CD**
- **Audio CD**
- **MP3**

3. Region code of the DVD player and DVDs

Since DVD films are not normally released in all parts of the world at the same time, all DVD players have a specific regional code. Discs can be given an optional regional code. If the regional codes differ between the player and the disc, playback is not possible.

DVDs must be marked ALL for all regions or specific number for specific region to work in this machine. If the DVD is marked with a different region, it cannot be played in this DVD player.

Some DVD discs may not have a regional code label even though their playback is prohibited by area limits.

Region 2 Europe, Japan, Middle East, Egypt, South Africa, Greenland

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

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This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.
U.S Patent Nos.4,631,603;4,907,093:5,315,448; and 6,513,132

Thank you for purchasing a Radix DMC. Please read this user's guide carefully, to be able to safely install, use and maintain the DMC at maximum performance. Keep this user's guide next to your DMC for future reference. Although every effort is made to ensure the accuracy of this document, Radix, Inc. assumes no responsibility for errors that may appear herein. The information is subject to change without notice.

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Introductions

Thanks for your purchasing this DMC. All DMC products manufactured from our plants meet the highest appropriate standards that the ISO 9002 requires. We hope you enjoy using this product.

Features

This product provides the following features:

- 2 x Digital Tuner
- Multiple DVB-T Receiving
- PVR with built-in HDD (160GB)
- DVD Playback
- Analog & Digital Recording into DVD media and HDD
- Picture in Picture
- Simple Operation through On Screen Display
- 3 SCARTS for TV, VCR, and other equipment
- Fully Infrared based Remote Control
- RS-232 Serial Link for Interaction with personal computer
- Display Signal Strength Meter for easy initial setup
- CD Quality Audio
- Volume control
- Teletext supported by internal software
- Subtitle function
- VPS function
- Favourite channel function
- Last channel recall function
- Variable aspect ratio (4:3, 16:9, Letter Box, Panorama)
- Electronic Programme Guide (EPG)
- Multi-Language function
- Parental lock function for Channel and DMC Access
- Channel sorting function (Name, Time, Date & Time, Channel)
- Various video outputs (SCART, Composite, S-VIDEO, Component)
- Various audio outputs (Stereo L/R, Coaxial, Optical)
- External video inputs (Composite, S-VIDEO)
- AC Power Switch (Rear panel)

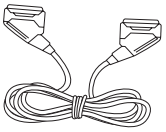
■ Unpacking

Accessories

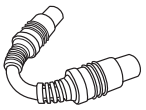
Check for the supplied accessories shown below:

Video/Audio Cables

Component Cables



SCART Cable



RF Loop Cable

S-Video Cable

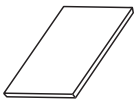
USB Mini Cable

Power Cord

Remote Eye

Batteries (AAA Size)

Remote Control

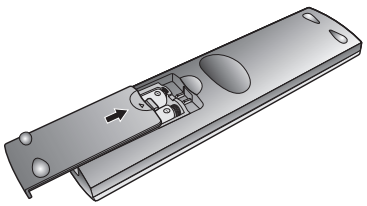


User's Guide

Software CD
(includes the utility to
connect USB with PC)

Preparing the Remote Control

Install Batteries in the Remote Control



1 Open the battery cover on the rear of the remote control.

2 Insert two AAA batteries. Make sure that the polarities (+ and -) are aligned correctly.

3 Replace the battery cover to the original position.

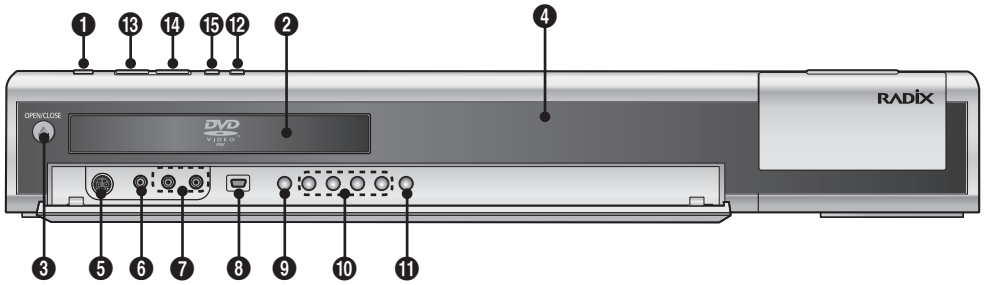
If the remote control does not operate properly,
- Check the polarity +/- of the batteries (Dry-Cell).
- Check if the batteries are drained.
- Check if any obstacles block the remote sensor.
- Check if there is any fluorescent lighting nearby.

Caution:

Dispose of batteries according to local environmental regulations. Do not put them in the household trash.

■ Description

Front Panel



❶ **POWER(⏻) BUTTON**
Turns the DMC on and off (standby).

❷ **DISC TRAY**
Opens to load or reload a disc.

❸ **OPEN/CLOSE(▲) BUTTON**
Opens and closes the disc tray.

❹ **DISPLAY**
Displays the playing status, programme number, broadcasting name, recording status, disc status, etc.

❺ **S-VIDEO INPUT**
Connect to S-Video output jack of external equipment.

❻ **COMPOSITE VIDEO INPUT**
Connect to composite video output jack of external equipment.

❼ **LEFT/RIGHT AUDIO INPUT**
Connect to audio output jacks of external equipment.

Note:

S-VIDEO Input, Composite Video Input, and LEFT/RIGHT AUDIO Input are needed for recording analog signals from external equipment such as VCR and camcorder with converted to digital format.

❽ **USB PORT**
Connect to USB port of a PC for software upgrade or file uploading & downloading.

Note:

To enable the use of this port, install the utility programme in the software CD provided. See the usage to the utility included in the CD.

❾ **MENU BUTTON**
Displays the main menu or selects a sub menu as the behavior of **OK** button on the remote control.

❿ **DIRECTION BUTTONS (▲/▼/◄/►)**
Moves the highlighted bar to select options on the menu.

⓫ **EXIT BUTTON**
Exits a menu or returns to the previous menu.

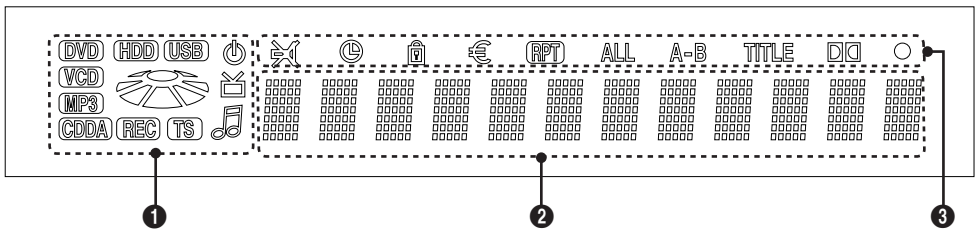
⓬ **MODE BUTTON**
Changes the media mode. (TV → HDD → DVD → Ext. S-Video → Ext. CVBS → TV)

⓭ **STOP(■) BUTTON**
Stops playing or recording.

⓮ **PLAY/PAUSE(►❚❚) BUTTON**
Starts playback or Pauses playback.

⓯ **RECORD(●) BUTTON**
Records programme on the HDD/ Re (writable) DVD discs.

Front Panel Display

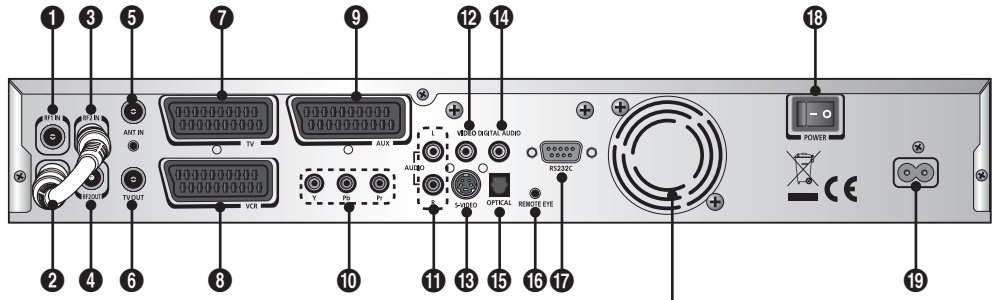


❶ Displays the media connection status. For example, if a DVD is loaded, DVD and moving disc sign are turned on. When the mode is standby, the power indicator lights. It also displays the status such as any live TV or radio channel is connected by lighting TV or musical note sign.

❷ Displays information by presenting text messages such as channel number, playing status, upgrading method, and the like.

❸ Displays information by lighting each sign about whether the speaker is inactive, the timer is set, the selected channel is blocked, a pay channel is selected, it repeats all or in a part unit, the **TITLE** button is pressed, the sound is Dolby, and any button on your remote control is pressed.

Rear Panel



Fan

The fan always operates when the HDD or DVD is active.
Ensure a minimum of 10cm clear space on all sides of the fan when installing your DMC.

❶ **RF1 IN**
Connect to a digital terrestrial antenna.

❷ **RF1 OUT**
Antenna Loop through out of RF1 IN.

❸ **RF2 IN**
Connect the RF1 OUT and RF2 IN using the Loop Cable.

❹ **RF2 OUT**
Antenna Loop through out of RF2 IN.

❺ **ANT IN**
Connect to a VHF/UHF antenna for analog broadcasting.

❻ **TV OUT**
Connect to your TV antenna terminal.

Note:

When you have available A/V interfaces such as SCART and RCA on your TV set, the connections to ANT IN and TV OUT are not necessary.

❼ **SCART1 (TV)**
Connect to your TV using a SCART cable.

❽ **SCART2 (VCR)**
Connect to your VCR using a SCART cable.

❾ **SCART3 (AUX)**
Connect to external equipment using a SCART cable.

❿ **COMPONENT VIDEO OUT (YUV or Y/C)**
Connect to component video inputs of your TV using component video cables.

⓫ **AUDIO OUT (L, R)**
Connect to audio inputs of your TV using audio cables.

⓬ **VIDEO OUT**
Connect to a video input of your TV using a video cable.

⓭ **S-VIDEO OUT**
Connect to an S-Video input of your TV using an S-Video cable.

⓮ **DIGITAL AUDIO OUT (COAXIAL)**
Connect to a coaxial input of your digital amplifier using a coaxial cable.

⓯ **DIGITAL AUDIO OUT (OPTICAL)**
Connect to an optical input of your digital amplifier using an optical cable.

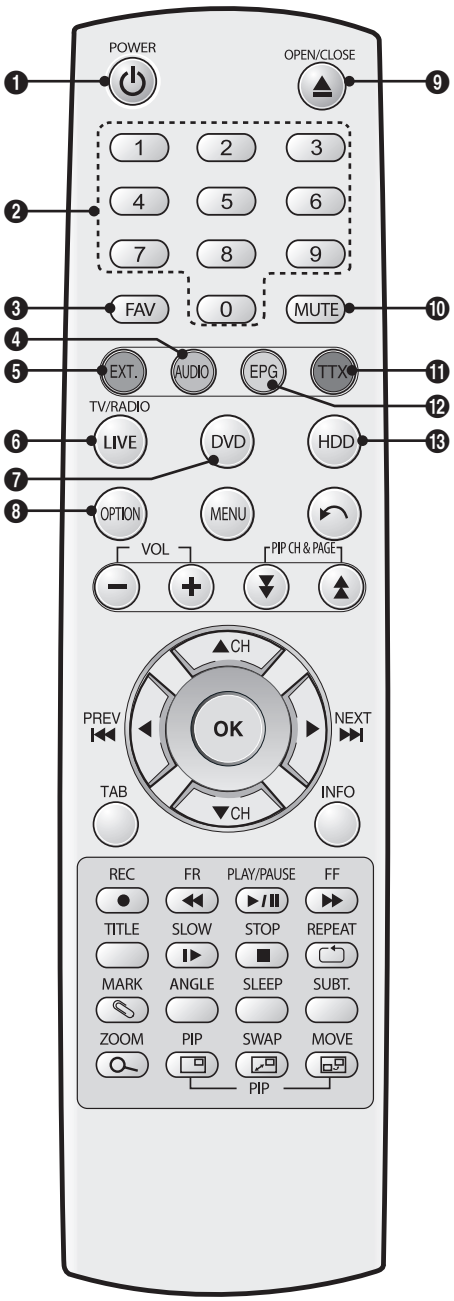
⓰ **REMOTE EYE**
Connect the Remote Eye to operate your remote control using infra-red communication.

⓱ **RS232C**
Connect to a serial port of your computer for software upgrade.

⓲ **POWER SWITCH**
Turn AC main power on or off.

⓳ **AC MAINS**
Connect the AC main power cord. The input AC voltage range is 95V to 250V, 50/60Hz supply.

Remote Control



❶ **POWER(⏻)**
Turns the DMC On or Off (standby).

❷ **NUMERIC Buttons (0~9)**
Enters the channel number directly. Also it is used for inputting the number for the menu commands.

❸ **FAV**
Used for the Favourite Manager function. You can also update your own favourite channel list.

❹ **AUDIO**
Changes to the audio mode for selecting a language and output mode such as Right Mono, Left Mono, and Stereo.

❺ **EXT.**
Switches the external input mode. When the mode is in EXT, it toggles between CVBS and S-Video.

❻ **LIVE(TV/RADIO)**
Switches the Live mode (TV → Radio → All → TV).

❼ **DVD**
Switches the DVD mode.

❽ **OPTION**
Displays the option menu that includes History, Sort, Lock, Add to List, Timer, and the like. Displayed functions on option menu may differ according to each situation.

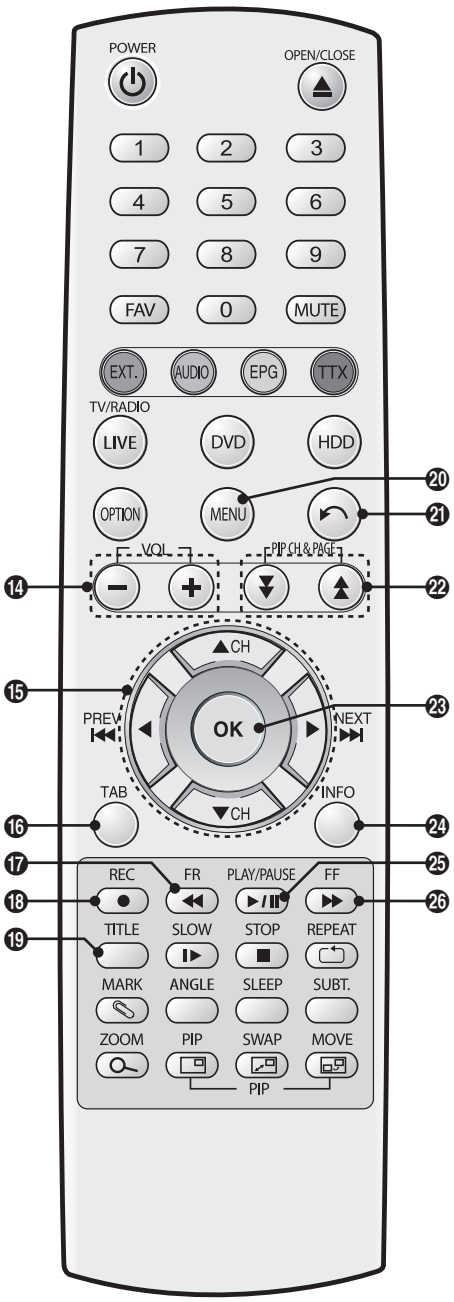
❾ **OPEN/CLOSE(▲)**
Opens or closes the disc tray.

❿ **MUTE**
Enables or disables the sound output.

⓫ **TTX**
Changes to the teletext mode.

⓬ **EPG**
Displays the programme information or Electronic Programme Guide (EPG).

⓭ **HDD**
Switches the HDD mode.



⑭ **VOL -/+**

Adjusts the volume level.

⑮ **Direction Buttons (▲/▼/◀/▶)**

Moves the highlighted bar to select an option on the menu.

⑯ **TAB**

Press this button to move to other tasks in progress so you can check the status on the Info bar like PIP, recordings, live channels, external inputs, and such.

⑰ **FR(◀◀)**

Rewinds at high speed. Each time you press this button the rewind speed increases. You can also search backward slowly while the **SLOW(I▶)** button is pressed.

⑱ **REC(●)**

Records Live TV/Radio channels to a HDD or recordable DVD disc.

⑲ **TITLE**

Displays the DVD title while a DVD plays.

⑳ **MENU**

Displays or exits the menu.

㉑ **(EXIT)**

Returns to the previous menu option or exits from the current screen.

㉒ **PIP CH & PAGE(▼/▲)**

Changes the channel on sub picture of PIP or the page of the channel list.

㉓ **OK**

Confirms a selected menu option or displays the channel list while watching a channel.

㉔ **INFO**

Displays the information about channel and programme on the Info Bar. Press it again, you can see the detailed information on the selected channel.

㉕ **PLAY/PAUSE(▶/❚❚)**

Plays at normal speed or pauses.

㉖ **FF(▶▶)**

Fast forward at high speed. Each time you press this button the fast forward speed increase. You can also search forwards slowly while the **SLOW(I▶)** button is pressed.

27 SLOW(I▶)

Plays the programme in slow motion mode. This button is activated only with HDD and time shift recording.

28 MARK(✎)

Sets a bookmark in a certain position while playing a file stored in HDD.

29 ANGLE

Selects a viewing angle when the loaded DVD title supports multiple angles. It all depends on the loaded disc itself.

30 ZOOM(🔍)

Zooms in the selected screen. It works with live channel, HDD, and EXT mode.
The zooming scale changes by pressing this button. (x2 → x4 → normal → x2)
While the zoom is active, use the direction buttons to relocate the zooming position.
Press the **OK** button to apply the selected scale.

31 PIP(⧉)

Watches two channels with main and sub screens simultaneously.

32 REPEAT(↻)

With DVD and VCD, it repeats chapter, title, track, or all (disc). With audio CD, it repeats all the tracks or selected ones. With HDD, it repeats selected bookmark segment.

33 STOP(■)

Stops playing or recording. In the case of DVD, the first press pauses playing and the second press switches the Live mode.

34 SUBT.

Press this to switch the subtitle language on the screen when you are watching a TV programme or a playing title.

35 SLEEP

Automatically turns off the device after a preset time interval. (10 → 20 → 30 min. → 1hr → 1.5hr → 2hr)

36 MOVE(⧉)

Moves the location of the sub picture.

37 SWAP(⧉)

Switches between the main picture and sub picture while the PIP works.

■ Connecting Your DMC

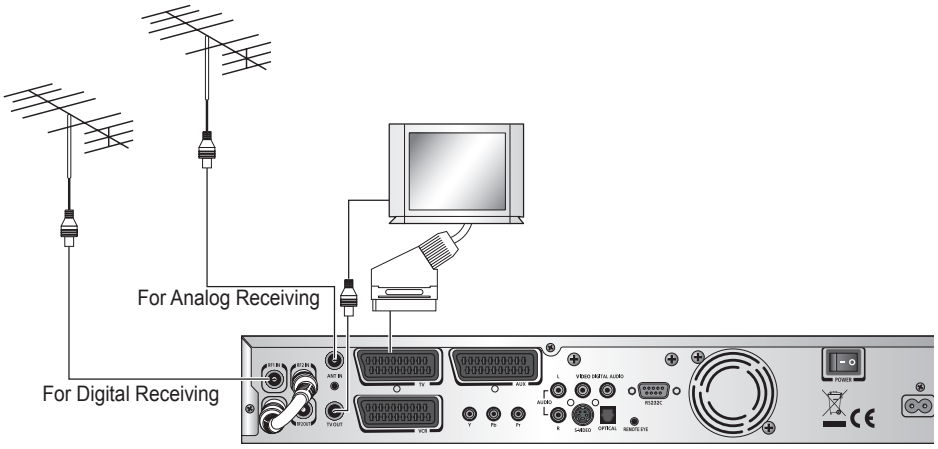
Connecting TV with RF cable and SCART cable

1 Connect your antenna to RF1 IN and RF2 IN connection on the rear of the DMC.

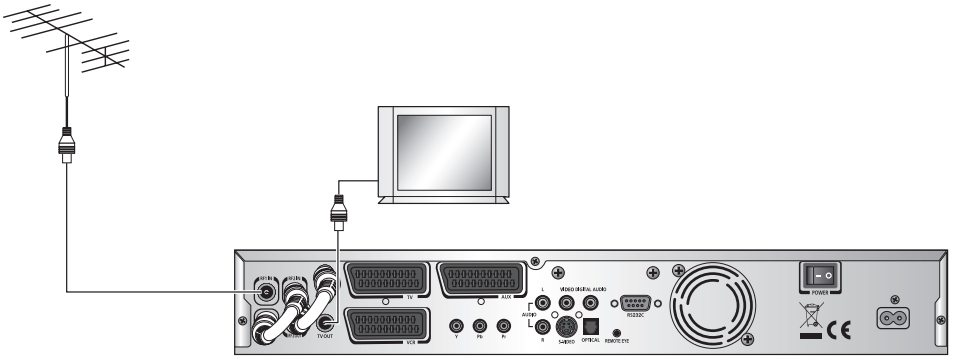
2 Connect an RF (Coaxial) cable from the TV OUT (Loop out) to the antenna input of your TV.

3 Connect a scart cable between SCART (TV) output jack on your DMC and SCART input jack on your TV.

4 Connect the mains plug of your DMC to a wall socket.



<Alternative connection for one antenna>



Note:

It is not necessary to connect the antenna for TV through your DMC if one of SCART or RCA input in the TV is available for connecting your DMC.

Connecting TV with Video cable/S-Video cable/Component video cables and Audio cables.

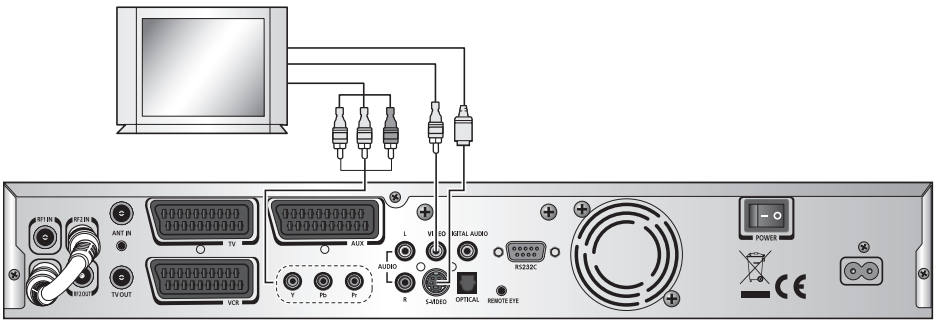
Use any of the following methods.
Resolution quality : Component video > S-VIDEO > VIDEO

1.1 Connect a video cable between VIDEO output jack on your DMC and VIDEO input jack on your TV.

1.2 Connect a S-Video cable between S-VIDEO output jack on your DMC and S-VIDEO input jack on your TV.

1.3 Connect a Component video cables between Component video (YUV or Y/C) output jacks on your DMC and Component video input jacks on your TV.

2 Connect an audio cable between AUDIO (L, R) output jacks on your DMC and AUDIO (L, R) input jacks on your TV.

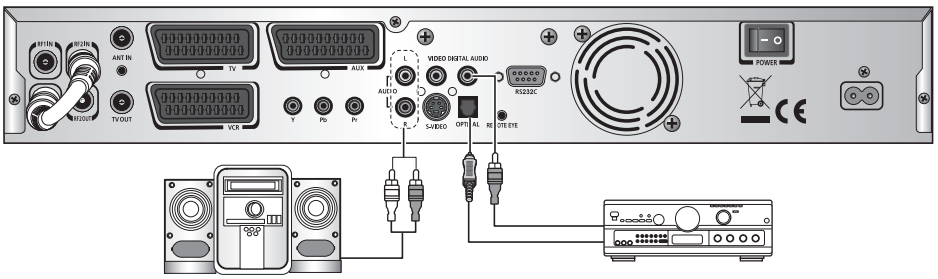


Connecting Audio System

Use any of the following methods.
Don't connect both audio jacks together!

1.1 Connect a coaxial cable between DIGITAL AUDIO output jack on your DMC and DIGITAL AUDIO input jack on your TV.

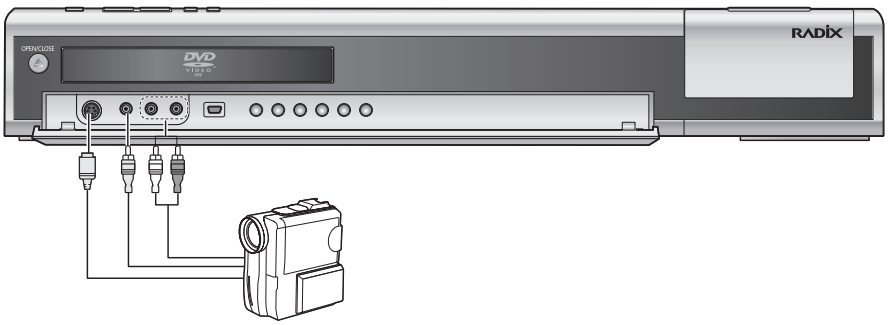
1.2 Connect an OPTICAL cable between OPTICAL output jack on your DMC and OPTICAL input jack on your TV.



Connecting an External Equipment

1 Connect a video (S-Video) cable between VIDEO (S-VIDEO) input jack on your DMC and VIDEO (S-VIDEO) output jack on your External Equipment (such as camcorder).

2 Connect an audio cable between AUDIO (L, R) input jacks on your DMC and AUDIO (L, R) output jacks on your External Equipment (such as camcorder).



■ Power On & Installation Wizard

After power is turned on, DMC will initially display the OSD language selection menu for you to set your language, and it automatically scans live channels and saves them.

First of all, connect your DMC with antenna (or aerial) and external devices. (See page 16, "Connecting Your DMC")

1. Switch your TV on.
2. Connect the power cord of your DMC to a wall outlet.
3. Turn on the power switch located at the left on the rear of your DMC.
4. Turn power on by pressing the **POWER(⏻)** button on the front of your DMC (or on your remote control).
   The **Menu Language** selection screen appears.
5. Select a preferable language using the ▲/▼ button and press the **OK** button.
6. When the Antenna Booster selection menu appears, select **ON** if an active antenna is connected.
   Your DMC saves live channels after scanning them.

Mode Selection

DMC has 4 separate modes such as LIVE, EXT, DVD, and HDD. To enable functions, set the mode first using mode buttons.

- **LIVE mode:** Select to watch TV and Radio live channels.
- **EXT mode:** Select to watch or record contents from external equipment.
- **DVD mode:** Select to enable the DVD player.
- **HDD mode:** Select to play back the recorded files stored in HDD.

Changing Channels

Make sure you DMC is in live mode.
You can change the current channel by three different methods.

- **Method 1:** Use the ▲/▼ button.
- **Method 2:** To select a channel directly, press a channel number using the **NUMERIC** button.
- **Method 3:**

1 To display the channel list, press the **OK** button.

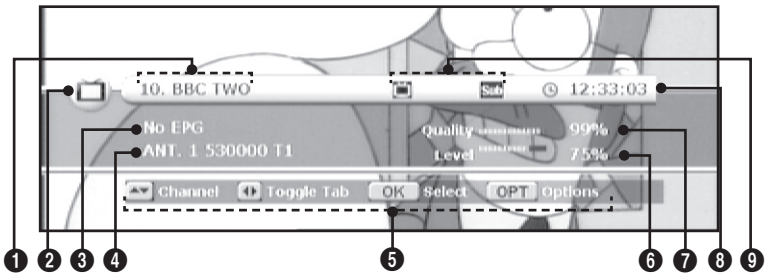
2 Select a channel you want to watch using the ▲/▼ button and then press **OK** button.
   - If there are multiple channels, use the **PIP CH & PAGE(⏬/⏫)** button to move to channels by page.
   - Press the ◄/► button to switch between Favourite channel lists and one of TV, Radio, and all channel lists (Please see “Add to List” on page 24 and “Favourite Manager” on page 49).
   - **LIVE(TV/RADIO)** button circulates among the TV, Radio, and All channels in order. It doesn’t affect the favourite channel lists.

■ Using the Info Bar

The Info bar always appears for a specific period of time whenever you switch channels. The period can be set by the Banner Timeout in the OSD Setup. (See page 46 for more details)

General Information

The general information is displayed on the screen with the following information when pressing the **INFO** or **TAB** button.



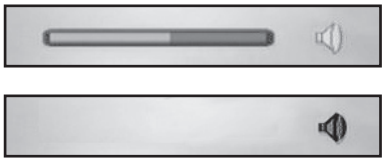
1. Channel number and name
2. Each Tab icon is displayed for Live, recordings, PIP, and etc. (See page 30)
3. EPG exists or not
4. ANT Input, Frequency, Transponder
5. Help bar
6. Signal Level
7. Signal Quality
8. Current time
9. Icons: Locked channel, Scrambled channel, Subtitle is available, Teletext information, TV/Radio mode

Detailed Programme Information

You can see detailed information about current programme by pressing the **INFO** button.
If pressed again, it displays the detailed programme information.

Detailed programme information

■ Volume Control and Mute



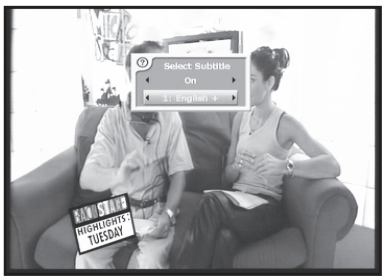
You can control the volume level, or keep the volume silent.

1. Press the **VOL –/+** button to control the volume level.
2. Press the **MUTE** button to turn the sound off.
3. Press the **MUTE** button again or the **VOL –/+** button to cancel muting.

Note:

If you want loud sound, increase the volume on your TV set rather than to use the volume control on this product.

■ Changing the Subtitles



If the current programme provides subtitle information, you can select a preferable language among available ones.

1. Press the **SUBT.** button to display the subtitle menu.
2. Set the subtitle function to **On** or **Off** using the ◄/► button and press the **OK** button.
3. Select your desired subtitle language using the ◄/► button and press the **OK** button.

■ Selecting the Audio Language

If the current programme is available in multiple audio languages, you can select a preferable language among available ones.

1. Press the **AUDIO** button to display the audio language menu.
2. Select an audio mode using the ◄/► button and press the **OK** button. The available modes can vary depending on the service provider. (Possible modes are **Stereo**, **Right Mono**, **Left Mono**, and **Dolby D**.)
3. Select your desired audio language using the ◄/► button and press the **OK** button.

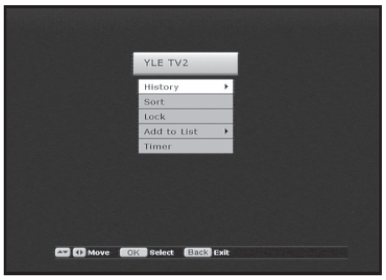
■ Viewing the Teletext (TTX)

When the current broadcasting programme includes the TTX information, you can access them.

Press the **TTX** button.

- **NUMERIC buttons:** Selects a TTX page directly.
- ▲/▼**:** Increases or decreases the TTX page.
- ↶**(EXIT):** Exits from the TTX.

■ Option List



<Live Screen>

<Channel List>

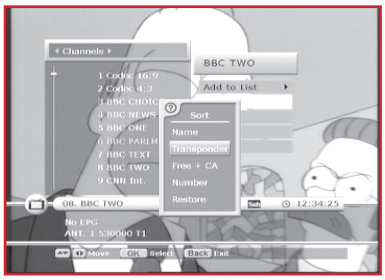
You can perform proper optional functions on the screen.

Press the **OPTION** button on live channel or channel list screen. The Option menu will appear.

- **Live screen options: History**, **Sort**, **Lock**, **Add to List**, and **Timer**.
- **Channel list options: Add to List**, **Sort**, **Lock**, **Delete**, and **Timer**.

History (Only Live mode)

Displays the previous 4 channels played. Use the ▲/▼ button to go to the previous channel you want. To remove all channels from the history, select **Delete**.



Sort (Live/ Channel List)

Displayed channels can be sorted by alphabetical order, transponder, combination of free-to-air and conditional access channels, and local channel number.
After the channels are sorted, you can return to the previous channel list by selecting **Restore**.

1 Select **Sort** using the ▲/▼ button and press the **OK** button.

2 Select the desired option using the ▲/▼ button and press the **OK** button.
The channels are sorted as you want.

Lock/Unlock (Live/ Channel List)

If it is necessary to prevent children from watching the current live program, you can lock the channel by selecting **Lock** using the ▲/▼ button. To confirm the setting, press the **OK** button. But you must bear in mind that this function works only when the parental control has been set to **On**. (See page 54 for the configuration)
Once the channel is locked, whenever you attempt to watch any programme on this channel. You are prompted to enter the password.

Add to List (Live/ Channel List)

Using this function, you can make your own favourite channel lists.
To add the current live channel into a favourite channel list, select **Add to List** using the ▲/▼ button and press the **OK** button.
If you haven't created any favourite channel list using Favourite Manager, the default names are given like List1, List2, ... When there are multiple channel lists, select one of them using the ▲/▼ button and press the **OK** button. Also you can add more favourite channel lists by your taste and delete or edit the existing ones. (See "Favourite Manager" on page 49)

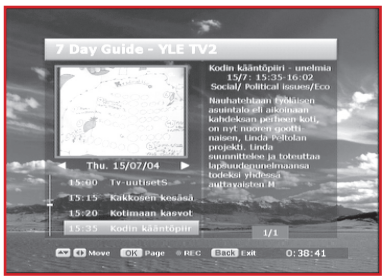
Timer (Live/ Channel List)

You can set the timer recording. (See page 31)

Delete (Only Channel List mode)

To delete the selected channel from the channel list, select **Delete** using the ▲/▼ button and press the **OK** button.

■ Using Electronic Programme Guide (EPG)



EPG displays programme information such as programme titles, broadcast schedule, programme synopsis, and etc.
This service depends on the service provider.

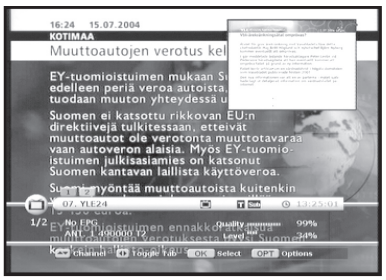
1 Press the **EPG** button while watching a TV channel or listening to a Radio channel.
The Electronic Programme Guide will appear.

2 Select a programme you want to see for further more information.
- ▲/▼**:** Selects an event by channel. If there are multiple channels, use the **PIP CH & PAGE(⮟/⮝)** button to move to channels by page.
- ◄/►**:** Selects an event by time & date within the same channel. It displays the programme list by 2 hours per block.

3 If you press the **OK** button, you can view the information detail of the selected event.
You can see the EPG information for 7 days. To see through them, use the ◄/► button. Each time schedule can be shown by using the ▲/▼ button.
To schedule recording for the selected programme that is displayed on EPG, press the **REC** button.

4 To exit from the EPG mode, press the ↶ **(EXIT)** button.

■ Viewing the Picture-in-Picture (PIP)



Using the PIP function, you can watch two channels with main and sub pictures simultaneously. You can also watch another TV programme or monitor another video input from the connected devices while watching TV or other video media.

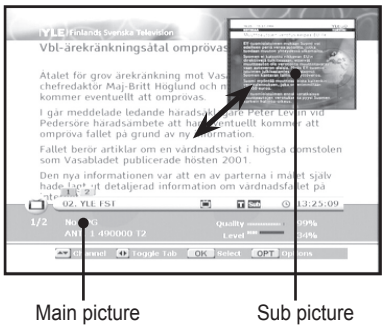
1 Press the **PIP(⧉)** button to display the sub picture.

2 To close the sub picture, press the **PIP(⧉)** button again.

Note:

- You can change the channels from within both main and sub pictures. With main picture, the channels are changed using ▲/▼ button or **NUMERIC** buttons. With sub picture, they are using **PIP CH & PAGE(⮟/⮝)** button.
- The mode combinations are:
  (Main+Sub):(Live + Live), (HDD + Live), (External + Live)
- The quality of the sub picture depends on the software so it may not be clear in some cases.

Swapping the PIP

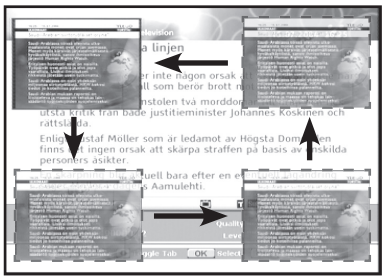


Press the **SWAP(⧉)** button to swap between the main and sub pictures.

Note:

To change the channel of the sub picture, first select the main channel, then press the **SWAP(⧉)** button to change the channel.

Moving the PIP



Press the **MOVE(⧉)** button to move the sub picture counterclockwise.

■ Instant Recording

<Selecting Media>

Recording the Live Channels

You can record up to four live channels instantly.

1 Select a TV or Rdio channel you want to record, then press the **REC(●)** button.
The media selection menu will appear.

2 Select a media to record using the ▲/▼ button and press the **OK** button.
- **HDD Record:** Current live channel will be recorded in the HDD.
- **DVD Record:** Current live channel will be recorded in the DVD.
- **Cancel:** Exits from the menu.

Note:

When you start instant recording into a (re-)writable DVD disc in the tray, the disc is automatically formatted. After the recording completes, the disc is automatically finalised.
A DVD+R type of disc can be recorded just once.
A DVD+RW type of disc can be recorded multiple times because it is rewritable after unfinalising it.

Multi-tasking

3 If you want to record other channels, select channels you want to record simultaneously and press the **REC(●)** button.

4 With the same method, you can record up to four live channels.
With multiple channels being recorded, you can check the status of those recordings on the channel-by-channel basis by pressing the **TAB** button as many times as you want.

5 To stop recording, change the channel and press the **STOP(■)** button.

Note:

A (re-)writable DVD disc is needed for DVD recording.

Recording from external equipment

You can record video signals from your external equipment such as DVD player, VCR, Camcorder, etc.

1. Connect video and audio cables from output jacks of your external equipment to input jacks located at the left on the front of your DMC.
2. Select an input format (one of S-Video and CVBS) by pressing the **EXT** button one or two times.
3. Start playing your external equipment.
4. You can see the video signals from your external equipment. If no signals, check cables connected.
5. Select a video quality out of **Low**, **Medium**, and **High** with the Info bar displayed using the ▲/▼ button.
6. To record, press the **REC(●)** button.
   A media selection menu will appear.
7. Select a media (**HDD Record** or **DVD Record**) to record using the ▲/▼ button and press the **OK** button.
   • **Cancel:** Exits from the menu.

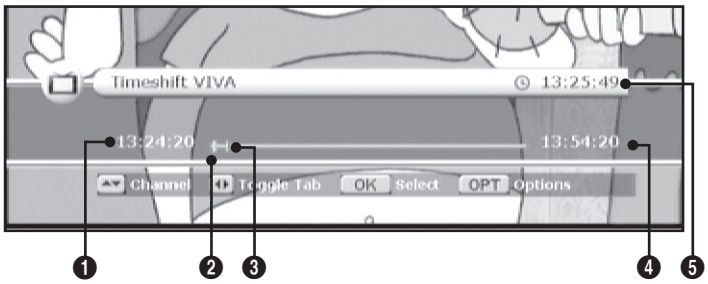
Note:

The file size for recording depends on the video quality.
Copy protected sources can not be recorded.

■ Time Shift Recording

This function enables replay of previous scenes while watching a live programme. It is almost the same effect as VCR.

First press the **PLAY/PAUSE(►/❚❚)** button while watching and the current programme will be paused (Also see "Timeshift Duration" and "Auto Timeshift" on page 56). The product temporarily saves the live programme into the HDD. After a while, press the **PLAY/PAUSE(►/❚❚)** button and the programme resumes. The Time status bar appears to show you the current operating status as shown in the picture. Use the playback-related buttons to play contents saved in the HDD. For instance, to move to the current broadcasting point, use the **FF(►►)** button.



❶ Time shift recording start time

❷ Watching point

❸ Broadcasting point

❹ Time shift duration end time (See page 56)

❺ Watching point time

To cancel the time shift recording, press the **STOP(■)** button.

- **Slow Motion:** Used to play the programme in slow motion mode.
- **Fast Rewind:** Used to search backward to previous scenes in fast speed. Each time you press it, the speed increases. (x2, x4, x8, x32) When the start point is met, it automatically resumes the play from the start in normal speed.
- **Fast Forward:** Used to search forward to the broadcasting point in fast speed. Each time you press it, the speed increases. (x2, x4, x8, x32) When the broadcasting point is met, it automatically shows you the current broadcasting pictures in normal speed.

■ Using the Tab button

You can perform multiple tasks such as recording total 4 programmes at a time, watching programmes in Live/DVD/HDD mode or from external equipment.

You can check the status of your multiple tasks running using Tab icons, which can show each status of your performing tasks.

To check each task of those, press the **TAB** button as many times as you want.
The pictures shown below present you several cases, for example, when you watch contents from external equipment and a live programme on the sub picture concurrently, and you record a live programme on DVD and record the playing contents from external equipment onto HDD at the same time.

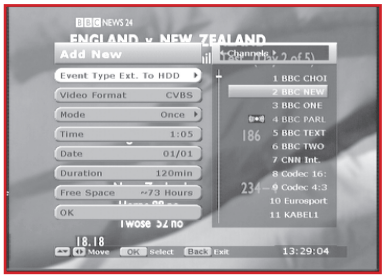
Watching a programme from external equipment

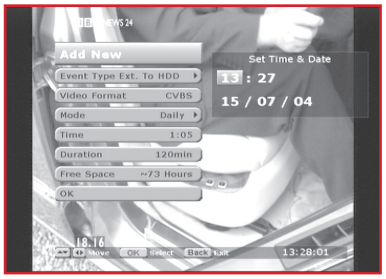
1st press of the TAB button: Sub picture showing a live channel

2nd press of the TAB button: Recording a live programme on DVD

3rd press of the TAB button: Recording a content from external equipment onto HDD

■ Schedule (Timer) Recording





You can reserve a recording by setting the date, time, channel, media, and frequency. Be sure that you have already set the current time for your DMC.

1 Press the **OPTION** button.
Option list will appear.

2 Select **Timer** using the ▲/▼ button and press the **OK** button.
The Add New menu will appear.

3 Select **Event Type** using the ▲/▼ button and press the ► or **OK** button.

4 Select a media (**HDD** or **DVD**) using the ▲/▼ button and press the **OK** button.
- **HDD Record:** Reserved programme will be recorded to the HDD.
- **DVD Record:** Reserved programme will be recorded to the DVD.
- **Ext. To HDD Record**: The programme on the external equipment will be recorded to the HDD.
- **Ext. To DVD Record**: The programme on the external equipment will be recorded to the DVD.

5 Select **Channel** using the ▲/▼ button and press the **OK** button.

6 Select the recording channel using the ▲/▼/◄/► buttons and press the **OK** button.
- ◄/►**:** Switches between all channel list and favourite channel list.
- ▲/▼**:** Moves the highlighted bar to select a channel.

7 Select **Mode** using the ▲/▼ button and press the ► or **OK** button.

8 Select a desired recording mode of reruns out of **Once**, **Daily**, and **Weekly**, using the ▲/▼ button and press the **OK** button.

9 Select **Time** or **Date** using the ▲/▼ button and press the **OK** button.

10 Set the current time and date using the ▲/▼/◄/► buttons and press the **OK** button.
- ◄/►**:** Goes to hour, minute, day, month, and year.
- ▲/▼ or **0~9:** Sets the time and date.

11 Select **Duration** using the ▲ or ▼ button and press the ◄/► button to set the value.
The range of duration is 5 minutes to 20 hours.

Note:

You can input the duration time directly by pressing **OK** and **NUMERIC** buttons. The direct input range is 5 minutes to 1200 minutes.

12 Select **OK** using the ▲/▼ button and press the **OK** button.

Note:

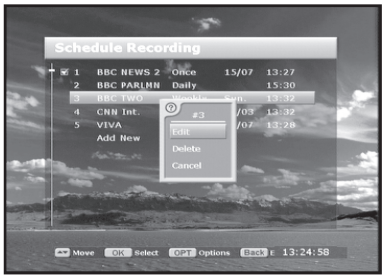
You can edit or delete any timer recording that has been set on the schedule recording menu as explained in "Editing Schedule Recording" in the coming pages.

■ Editing Schedule Recording

You can edit or delete the reserved programmes for schedule recording. Also you can add new schedules. (See "Schedule (Timer) Recording" on page 31)

Editing a schedule recording

Schedule Recording
1 BBC NEWS 2 Once 15/07 13:27
2 BBC PARLMN Daily 15:30
3 BBC TWO Weekly Sun. 13:32
4 CNN Int. Once 15/03 13:32
5 VIVA Once 15/07 13:28
Add New
Move OK Select OPT Options Back E 13:27:04



To edit a reserved programme,

1. Press the **MENU** button.
2. Select **Schedule Recording** using the ▲/▼ button and press the **OK** or ► button.
   Schedule Recording menu will appear.
3. Select a reserved programme you want to edit using the ▲/▼ button and press the **OK** or **OPTION** button.
   A pop-up menu will appear.
4. Select **Edit** using the ▲/▼ button and press the **OK** button.
   An Edit Event menu will appear.
5. Edit a desired item using the ▲/▼ button and press the **OK** button.
   The same is true for editing the items as shown in Timer Recording. (See page 31)

Deleting the Schedule Recording

To delete a reserved programme,

1. Press the **MENU** button.
2. Select **Schedule Recording** using the ▲/▼ button and press the **OK** or ► button.
   Schedule Recording menu will appear.
3. Select a reserved programme you want to delete using the ▲/▼ button and press the **OK** or **OPTION** button.
   A pop-up menu will appear.
4. Select **Delete** using the ▲/▼ button and press the **OK** button.
   The selected schedule recording is deleted.

■ Playback—HDD mode

Playing the recorded programme in the HDD

To play the TV programmes recorded in the HDD,

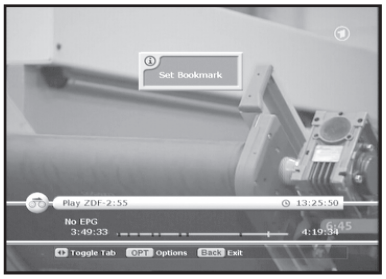
1 Press the **HDD** button.
The Play list menu will appear.

2 Use the ▲/▼ button to see the selected programmes on the thumbnail screen. Press the **OK** or **PLAY/PAUSE(►/❚❚)** button to see the programmes on the full screen.

Playback control buttons in HDD mode are:

- **PLAY/PAUSE(►/❚❚):** Plays or pauses the programme.
- **STOP(■):** Stops playing. Press it again to return to the play list menu.
- **FR(◄◄)/FF(►►):** Fast rewind or fast forward; each time you press it, the speed increases. (x2, x4, x8, x32)
- **SLOW(❚►):** Plays slowly at an x1/4 or x1/2 speed. To resume, press the **PLAY/PAUSE(►/❚❚)** button.

Using bookmark function in HDD or Timeshift mode



Add Bookmark

You can set bookmarks where you want to save the specific scenes of recordings for easier search.

Press the **MARK(✎)** button at a desired scene. It displays a message saying **"Set Bookmark."** You can use **FR(◄◄)** or **FF(►►)** button to quickly move to the next bookmarked scenes. When you press the **INFO** button, the bookmarked positions are displayed.

Note:

You can save up to 20 bookmarks for a maximum in a recording.

Go to Bookmark

You can move to any of preset bookmarks.

1 Press the **PREV(I◄◄)/NEXT(►►I)** button.
Each time you press the **PREV(I◄◄)/NEXT(►►I)** button, a previous or next bookmark is selected.

2 Use the **PREV(I◄◄)/NEXT(►►I)** button until the bookmark you want appears, and press the **OK** button. The selected bookmark will start playing.

Delete Bookmark

Yon can delete any of preset bookmarks.

Use the **PREV(⏮)/NEXT(⏭)** button until the bookmark you want to delete appears, and press the **MARK(✎)** button. The selected bookmark will be deleted.

Clear Bookmarks

You can clear all the bookmarks set in the current play.

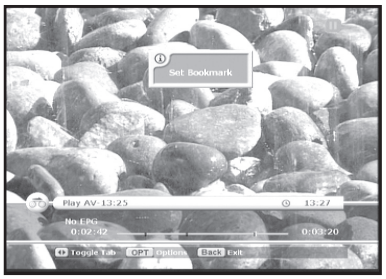
To do this,

1. Press the **OPTION** button during playback on the HDD.
2. Select **Clear Bookmarks** using the ▲/▼ button and press the **OK** button.

Editing a file using bookmarks

The preset bookmarks can also be used in the file edit function on the HDD editing menu.

To do this,



1. Set bookmarks as mentioned before. You can also set bookmarks for partial cutting or for copying the recorded file.
2. Press the **MENU** button and select **Hard Disk Manager**, then press the **OK** button.
3. Select **Play list**. The screen shows you the contents you have recorded.
4. Select the content you want to edit and move to the option list using the ▶ button.

5. Select **Edit** and press the **OK** button.
   The screen shows the bookmark positions on the progress bar and their segments displayed at the top left corner.
6. Uncheck the file segments for cutout as shown in the picture. You can delete advertisements on your own,for example.

7. Set the **Delete Original** to **Yes** if you don't need the original file anymore and set the **Save Separate** to **Yes** if you want to copy the cheaked file segments to multiple separate files. When the **Save Separate** is set to **No**, it will come up with only one new file excluding unchecked segments.

8 Select **OK** and press the **OK** button.
HDD starts editing, which can take time depending on the file size. While copying files, you can watch other contents in live TV, DVD, or HDD. To check the copying status, use the **TAB** button.

Repeat Function

For repeating the play, you can repeat a segment of selected bookmark or whole file after pressing the **REPEAT(↻)** button. With no bookmark, you can also set the starting and ending time after pressing the **REPEAT(↻)** button.

Using optional functions on Play list menu

1 Press the **OPTION** button on the Play list menu.
Sort option list will appear.

2 Select the desired sort option using the ▲/▼ button and press the **OK** button.
The play list is sorted by the selected option.
Sort options are:
- **Name:** Sorts by playlist name
- **Time:** Sorts by recording time.
- **Date & Time:** Sorts by recording time & date.
- **Channel:** Sorts by channel name.
- **Cancel:** Select this to cancel the sort.

Using the optional functions during playback of recorded programme

You can perform the optional functions such as **History**, **Rename**, **Delete**, **Lock**/**Unlock**, and **Clear Bookmarks**.

Press the **OPTION** button during playback on the HDD.
Option list menu will appear.

History

It shows you the previous 4 files played. Use the ▲/▼ button to select a recorded play, then press the **OK** button to watch the play. To delete them all, select **Delete**.

Rename

To rename selected play,

1. Select **Rename** using the ▲/▼ button and press the **OK** button.
   The Rename menu will appear.

2. Use ▲/▼/◄/► button to move the cursor to **Delete**, then press the **OK** button as many times as characters to delete the exiting name. The current play name is deleted.

3. Using the ▲/▼/◄/►, select characters and press the **OK** button for each input to enter the new play name.

4. Move the cursor to **OK** using the ▲/▼/◄/► buttons and press the **OK** button.
   The selected play is renamed.

Delete

To delete selected play, select **Delete** using the ▲/▼ button and press the **OK** button.

Lock/Unlock

To lock or unlock the current play, select **Lock/Unlock** using the ▲/▼ button and press the **OK** button.

Clear Bookmarks

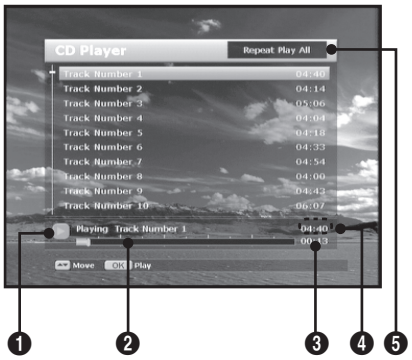
To clear all bookmarks on the play, select **Clear Bookmarks** using the ▲/▼ button and press the **OK** button.

■ Playback—DVD mode

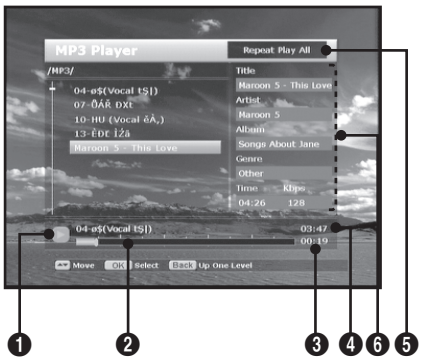
Playing an Audio CD (CD-DA and MP3 Discs)

You can play the disc title such as audio (CD-DA) and MP3 CDs.

<Audio CD>



<MP3>



❶ Current playback status
❷ Status bar
❸ Elapsed playback time
❹ Total playback time
❺ Repeat mode
❻ Detailed information on each file: Title, Artist, Album, Genre, Time, Audio compression format, etc.

1 Open the disc tray by pressing the **OPEN/CLOSE(⏏)** button, then place a music CD into the disc tray.

2 Close the disc tray by pressing the **OPEN/CLOSE(⏏)** button.

3 Press the **DVD** button to change the mode.
The Play list menu will appear.

4 Select a track or file that you want to play using ▲ or ▼, then press **OK**.
- ▲/▼: Moves the highlighted bar to select a track, file, or folder.
- **OK**: Plays the selected track or file. You can see the lower level folders.
- **↶(EXIT):** Changes to the upper level folder.
- **PLAY/PAUSE(►/❚❚):** Plays the DVD or pauses its action.
- **FR(◄◄)/FF(►►):** Fast Rewind or Fast Forward; each time you press it, the speed increases. (x2, x4, x8, x16) It works on audio CD only.
- **STOP(■):** Stops playing.
- **Back:** Goes to upper folder (MP3 only).
- **LIVE(TV/RADIO):** Returns to the live channel.

Repeating a Track or Disc

While a disc playing, press the **REPEAT(↻)** button.
Each time you press the **REPEAT(↻)** button, the repeating sections are changed (**Repeat Play Single** → **Repeat Play All** → **Repeat Play Off**). Select the section you want.

Playing the recorded programme in the DVD

To play the TV programmes recorded in the DVD,

1 Press the **DVD** button.
The DMC will start playback automatically.

Note:

Playback-related buttons operate as same as HDD.

Playing a DVD or VCD

You can play DVD or Video CD titles.

1 Open the disc tray by pressing the **OPEN/CLOSE(▲)** button, then place a DVD title (or VCD) into the disc tray.

2 Close the disc tray by pressing the **OPEN/CLOSE(▲)** button.

3 Press the **DVD** button to change the mode.

For DVD:

Select a desired item in the DVD title menu using the ▲/▼/◄/► buttons and press the press **OK** button. The title menu displayed depends on the DVD.

For VCD:

If a Video CD has the playback control, you can bypass the disc's menu by these steps when you first load the discs.

1 Press **STOP(■)** button to put the player in the stop mode.

2 Using the **NUMERIC** buttons to enter the desired track number and press the **OK** button.
When playback begins, the disc will respond as if it is not in the Playback Control mode.
- **▲/▼/◄/►:** Selects items from the DVD title menu.
- **OK:** Confirms an item selection.
- **PLAY/PAUSE(►/❚❚):** Plays the disc or pauses its action.
- **FR(◄◄)/FF(►►):** Fast Rewind or Fast Forward. Each time you press it, speed is increase. (x2, x4, x8, x16)
- **STOP(■):** Stops playing.
- **TITLE:** Returns to the title menu or VCD menu depending on the disc.
- **LIVE(TV/RADIO):** Returns to the live channel.

Skipping Chapters

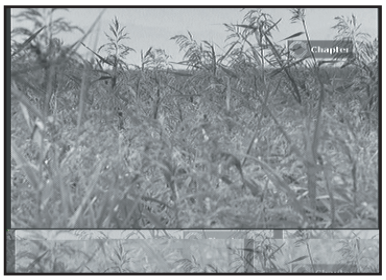
You can move to the next chapter, or the previous chapter.

When playing a DVD, if you press the **NEXT(▶▶I)** button, it skips to the next chapter.
When playing a DVD, if you press the **PREV(I◀◀)** button, it moves to the previous chapter.

Note:

When playing a VCD, if you press **PREV(I◀◀)** or **NEXT(▶▶I)** button, it moves to the next (or previous) track.

Repeating a Chapter, Title or Disc



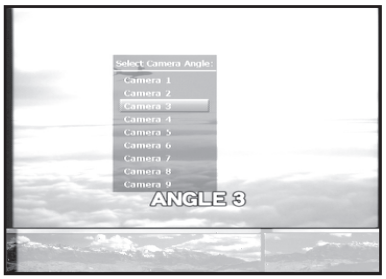
You can repeat the currently playing chapter, title or disc.

While a disc playing, press the **REPEAT(↻)** button.
Each time you press the **REPEAT(↻)** button, repeating sections are changed (**Chapter** → **Title** → **All** → **Cancel**).
Select the section you want.

Note:

When playing a VCD, repeating units are changed (**Track** → **All** → **Cancel** → **Track**).

Changing the Camera Angle



Some DVDs contain multiple angles of a particular scene or sequence. You can select the camera angle.

1. Press the **ANGLE** button.
   The select Camera Angle menu will appear.

2. Select the desired angle no. using the ▲/▼ button and press the **OK** button.
   Selected angle view is displayed.

Note:

This feature does not work if a DVD has not been recorded with multiple camera angles.

You can setup your DMC with **Local Time**, **TV Setup**, **OSD Setup**, **Factory Reset**, **Antenna Booster**, **Hide Duplicate**.

1 Press the **MENU** button.

2 Select **System Setup** using the ▲/▼ button and press the **OK** button.
The System Setup menu will appear.

3 To exit, press the ↶ **(EXIT)** button.

■ Local Time

You can set the time of your DMC automatically or manually.

1 Select **Local Time** using the ▲/▼ button and press the ► or **OK** button.

2 Select desired items using the ▲/▼ button.

Auto Time

Current time and date are automatically set by the broadcasting signal from the station.

• ◄/► or **OK:** Toggles **On** and **Off**.

Note:

If you select **On**, you need not set them such as **Set Time & Date**, **GMT**, and **Time Offset**.

Set Time & Date

Sets the current time and date manually.

• ◄/►**:** Goes to hour, minute, day, month, and year by turns.
• ▲/▼ or **0~9:** Sets the time and date.
• **OK:** Enters or confirms the setup menu.

Greenwich Mean Time (GMT)

Current time is set to GMT.

• ◄/►**:** Changes the offset time from –12 to +11.

Time Offset

Sets the time offset value.

- ◄/►**:** Changes the offset time that is **–30 min**, **0 min**, or **+30 min**.

Summer Time

Sets the daylight saving time to **On** or **Off**.

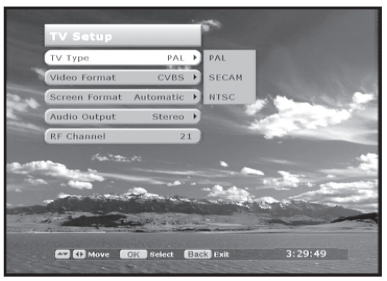
- ◄/► or **OK:** Toggles **On** and **Off**.

■ TV Setup

You can set up your TV with **TV Type**(broadcasting system), **Video Format**, **Screen Format**, **Audio Output**, and output **RF channel**.

1. Select **TV Setup** using the ▲/▼ button and press **OK** button.
   The TV Setup menu will appear.
2. Select a desired item using ▲/▼ button and press the ► or **OK** button.

TV Type

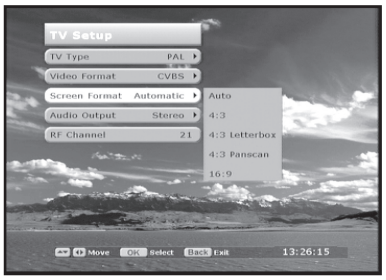


Selects a broadcasting system out of **PAL**, **SECAM**, and **NTSC** using the ▲/▼ button and press the **OK** button.

Video Format

Selects a video signal format out of **RGB**, **CVBS**, **S-VIDEO**, and **YUV** using the ▲/▼ button and press the **OK** button. The output format should be suitably selected for equipment such as TV or VCR.

Selected Menu	TV Scart Output	RCA Output
RGB	RGB	X
CVBS	CVBS	Y/C
S-VIDEO	Y/C	Y/C
YUV	YUV	YUV



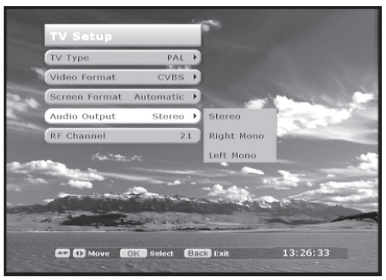
Screen Format

Selects a screen format out of **Auto**, **4:3**, **4:3 Letterbox**, **4:3 Panscan**, and **16:9** using the ▲/▼ button and press the **OK** button.

In accordance to the type of your TV you have, you can adjust the screen aspect ratio. When the source is 4:3 and your TV monitor size is the same, select **4:3**. If the source is 16:9 and your TV monitor size is the same, select **16:9**. That's the best case you can imagine.

But the problem happens when the aspect ratios between source and TV monitor are different. To adjust the screen aspect ratio as you want, refer to the following.

- **Auto:** Choose this when you want to see an image with converted to full screen regardless of the aspect ratio of source.
- **4:3:** Choose this when you want to see a 4:3-ratio full image. When the source is 16:9, vertical screen distortion happens.
- **4:3 Letterbox:** Choose this when you want to see a 16:9-ratio image on the 4:3-ratio TV monitor. It shrinks the 16:9-ratio image with no screen distortion so the top and bottom of the screen are empty.
- **4:3 Panscan:** Choose this when you want to see a 4:3-ratio image on the 16:9-ratio TV monitor. It shrinks the 4:3-ratio image with no screen distortion so extreme left and right sides are cut off.
- **16:9:** Choose this when you want to see a 16:9-ratio full image. When the source is 4:3, horizontal screen distortion happens.



Audio Output

Selects an audio output out of **Stereo**, **Right Mono**, and **Left Mono** using the ▲/▼ button and press the **OK** button.

RF Channel

Selects an output RF channel number for the TV.
The RF modulator modulates the output signal of your DMC, which is transmitted through the TV OUT antenna terminal.
Set an output channel (CH21 ~ CH69) using the ◄/► button.
You can connect your DMC to TV through antenna cable, although it is recommended to connect to Scart cable or RCA Cable. It is useful when you have a guide old-model TV without Scart and RCA inputs.

■ OSD Setup

You can set up your OSD such as **Menu Language**, **Transparency**, and **Banner Timeout**.

Select **OSD Setup** using the ▲/▼ button and press the **OK** button.
The OSD Setup menu will appear.

Menu Language

You can set the language for OSD Menu.

1. Select **Menu Language** using the ▲/▼ button and press the ► or **OK** button.
2. Select a desired menu language using the ▲/▼ button and press the **OK** button.

Transparency

You can adjust the OSD Menu transparency.

1. Select **Transparency** using the ▲/▼ button.
2. Set the OSD transparency level (0% ~ 90%) using the ▲/▼ button.

Note:

When the transparency is 0% (or opaque), you cannot see the background screen.

Banner Timeout

You can set the display duration of the Info bar. For more details on the Info bar, see "Using the Info Bar" on page 21.

1 Select **Banner Timeout** using the ▲/▼ button.

2 Set the time duration for banner display (**3**, **5**, **10**, **15**sec.) using the ▲/▼ button.

Factory Reset

All the settings of your DMC can be initialized with the factory-default values. The default values cannot be removed. Enter your password for reset.

Be careful not to perform this function except for emergency use. It may delete the previous user settings.

Note:

The factory default password is "0000."

Antenna Booster

You can select the antenna power with **On** or **Off**. Select **On** at the weak signal area and connect external booster.

• ◄/► or **OK:** Toggles **On** and **Off**.

Note:

An active antenna can boost up the RF signal.

Hide Duplicate

Once it is set to **On**, you can hide the duplicated broadcasting channels that are transmitted on different frequencies even though contents are exactly the same.

• ◄/► or **OK:** Toggles **On** and **Off**.

LCN Display

In some countries, they are using logical channel numbers, which can appear on Channel Information when this option is set to **On**. The logical channel numbers are used when sorting the channels.

• ◄/► or **OK**: Toggles **On** and **Off**.

Front Panel Scroll

Once it is set to **On**, any message text slides from right to left with not fixed.

• ◄/► or **OK**: Toggles **On** and **Off**.

You can manage the stored channels.

1 Press the **MENU** button.

2 Select **Channel Manager** using the ▲/▼ button and press the **OK** button.
The Channel Manager menu will appear.

3 To exit, press the ↶ **(EXIT)** button.

■ Edit Channel

You can edit the stored channels with **Delete**, **Rename**, **Select All**, **Reorder**, **Lock**.

1 Select **Edit Channels** using the ▲/▼ button and press the **OK** button.

2 Select a channel you want to edit using the ▲/▼ button and press the **OK** button.
A check mark (✓) will appear.

Note:

To cancel selection, press the **OK** button again.

3 To switch between the channel list and the edit option list, press the ◄/► button.

Deleting Channels

To delete channels,

1 Select **Delete** using the ▲/▼ button and press the **OK** button.

2 Select **OK** using the ◄/► button and press the **OK** button.

Renames Channels

To rename the selected channel,

1 Select **Rename** using the ▲/▼ button and press the **OK** button.

2 To rename a channel, select the characters using the ▲/▼/◄/► buttons, then press the **OK** button for each input.
See page 38 for use of the keypad.
• ↶**(EXIT):** Cancels the input.
• **OK:** Completes the input.
• **Delete:** Deletes the last character.

Selecting All Channels

To select all channels,

Select **Select All** using the ▲/▼ button and press the **OK** button. All the channels will be displayed with marked.

Reordering Channels

To change the position of channels on the channel list,

1. Select a channel from the channel list using the ▲/▼ button.
2. Move the cursor to the option list using the ◄/► button.
3. Select **Reorder** using the ▲/▼ button and press the **OK** button.
   A direction mark (⇕) will appear.
4. Change the position using the ▲/▼ button and press the **OK** button.

Locking and unlocking Channels

To lock or unlock the selected channels,

Select **Lock** using the ▲/▼ button and press the **OK** button.
Selected channels will be displayed with lock-marked.
If pressed again, they changes to normal.

Exiting the Menu

Select **Exit** using the ▲/▼ button and press the **OK** button.
The screen exits the menu.

Note:

You can sort channels by pressing the **OPTION** button.
Select a desired item out of **Name**, **Transponder**, **Free + CA**, and **Number**. A channel list is sorted by the selected item.
(See page 24)

■ Favourite Manager

You can add or modify favourite channel lists.

Select **Favourite Manager** using the ▲/▼ button and press the **OK** button.

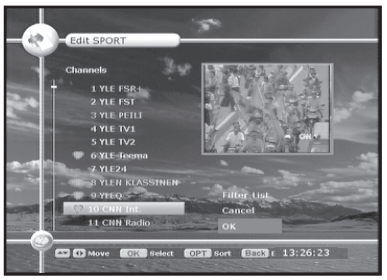
Adding a New Favourite Channel List

To add a favourite channel list,

1. To add a new channel list, select **Add New List** using the ▲/▼ button and press the **OK** button.
2. To input a channel name, move the cursor to **Delete** using the ◄/► button, then press the **OK** buttons until the suggested list name is cleared.
3. Select characters using the ▲/▼/◄/► button, then press the **OK** button for each character input.
   - ↶**(EXIT):** Cancels the input.
   - **OK:** Completes the input.
   - **Delete:** Deletes the last character.

Editing Favourite Channel Lists

To edit favourite channel lists, select a favourite channel list you want to modify using the ▲/▼ button and press the ► or **OK** button. You can edit, rename, delete, and recorder the favourite channel list.



Edit

You can register or remove favourite channels in the channel list.

1 Select **Edit** using the ▲/▼ button and press the **OK** button.

2 To register or remove a channel, select a desired channel using the ▲/▼ button and press the **OK** button.
A heart mark (♥) will appear.

Note:

To cancel the selection, press the **OK** button again.

3 To move the position on the editing option list, press the ◄ /► button.

4 Select an option using the ▲/▼ button and press the **OK** button.

- **Filter List:** Lists marked channels only.
- **Cancel:** Cancels the selection.
- **OK:** Confirms the selection.

Rename

To rename the selected favourite channel list, select **Rename** using the ▲/▼ button and press the **OK** button.
To rename a channel list, select characters using the ▲/▼ /◄/► buttons, then press the **OK** button for each input. (See page 38)

- **(EXIT):** Cancels the input.
- **OK:** Completes the input.
- **Delete:** Deletes the last character.

Delete

To delete the favourite channel list, select **Delete** using the ▲ /▼ button and press the **OK** button.

Reorder

To change the position of a channel on the channel list,

1. Select **Reorder** using the ▲/▼ button and press the **OK** button.
2. Select a channel you want to move using the ▲/▼ button and press the **OK** button.
   A direction mark (⇕) will appear.

   Note:

   To cancel the selection, press the **OK** button again.
3. Change the position using the ▲/▼ button and press the **OK** button.
4. To confirm, press the ◄/► button to move the option list and select **OK** using the ▲/▼ button and press the **OK** button.

Note:

You can sort channels by pressing the **OPTION** button.
Select a desired item out of **Name**, **Transponder**, **Free + CA**, and **Number**.
A channel list will appear sorted by the selected item.

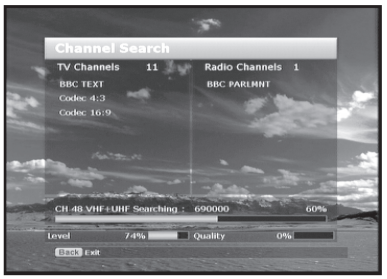
In this menu, you can store the channels.

1 Press the **MENU** button.

2 Select **Installation** using the ▲/▼ button and press the **OK** button.
The Installation menu will appear.

3 To exit, press the ↶ **(EXIT)** button.

■ Auto Search



This menu will enable your DMC to search and store the channels automatically.

1 Select **Auto Search** using the ▲/▼ button and press the **OK** button to start searching.

2 To exit during the search, press the ↶ **(EXIT)** button.

■ Manual Search

This menu will enable your DMC to search and store the channels manually.

1 Select **Manual Search** using the ▲/▼ button and press the ► or **OK** button.

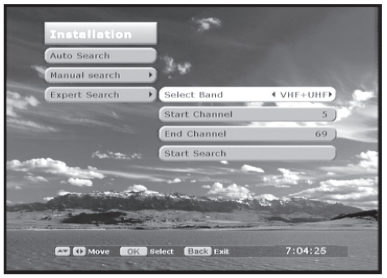
2 Select **Channel** using the ▲/▼ button and press the ◄ /► button to select a channel number.

3 Select **Start Search** using the ▲/▼ button and press the **OK** button to start searching.

Note:

In the Start Frequency (kHz) item, you can see the start frequency.
As an example, if you selected the channel 21, the start frequency is set with 47400kHz. If the channel is detected, it is added to the channel list.

■ Expert Search



You can search and store the channels by your taste.

Select **Expert Search** using the ▲/▼ button and press the ► or **OK** button.
You can search the channel by frequency band such as **VHF**, **UHF**, **VHF** + **UHF**, and **Manual**.

1 Select a desired band using the ◄/► or **OK** button.
The available bands are **VHF**, **UHF**, **VHF + UHF**, and **Manual**.

2 Select **Start Channel** using the ▲/▼ button and press the ◄/► or **OK** button to select a start channel.

3 Select **End Channel** using the ▲/▼ button and press the ◄/► or **OK** button to select an end channel.

- **VHF:** Searches channels from 5 to 12.
- **UHF:** Searches channels from 21 to 69.
- **VHF + UHF:** Searches channels from VHF to UHF bands. (i.e. 5 ~12, 21~69 channels)
- **Manual:** Searches channels with the input start frequency

4 Select **Start Search** using the ▲/▼ button and press the **OK** button to start searching.

You can lock the particular channels to prevent your children from watching adult programmes. There are 6 different parental ratings.

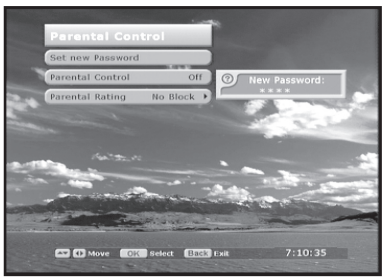
For this control,

1 Press the **MENU** button.

2 Select **Parental Control** using the ▲/▼ button and press the **OK** button.
The Parental Control menu will appear.

3 To exit, press the ↶ **(EXIT)** button.

■ Set new Password



To set your new password,

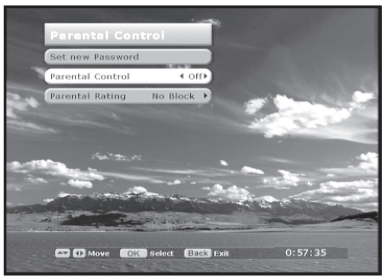
1 Select **Set new Password** using the ▲/▼ button and press the **OK** button.

2 Enter a 4-digit password using the **NUMERIC** buttons.

Note:

To change your password, enter your old password first.

■ Parental Control

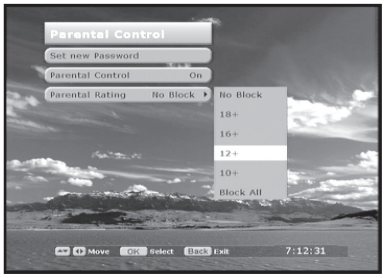


To turn on or off the parental control,

1 Select **Parental Control** using he ▲/▼ button and press the ◄/► or **OK** button.
The password input box will appear.

2 Enter your 4-digit password to toggle on and off.

■ Parental Rating



To set parental ratings,

1 Select **Parental Rating** using the ▲/▼ button and press the ► or **OK** button.

2 Selects a parental rating using the ▲/▼ button and press the **OK** button.
The password input box will appear

3 Enter your 4-digit password to confirm it.

In this menu, you can manage the HDD media.

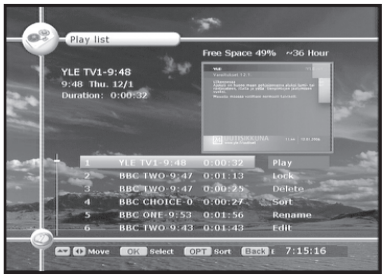
For this configuration,

1 Press the **MENU** button.

2 Select **Hard Disk Manager** using the ▲/▼ button and press the **OK** button.
The Hard Disk Manager menu will appear.

3 To exit, press the ↶ **(EXIT)** button.

■ Playing and Editing Programmes on Play list



You can play a programme recorded in the HDD. And also you can edit it with **Lock**, **Delete**, **Sort**, and **Rename**.

1 Select **Play list** using the ▲/▼ button and press the **OK** button.
The Play list menu will appear.

2 Select a recorded programme you want to play or edit, using the ▲/▼ button and press the **OK** button.
A check mark (✓) will appear.

Note:

To cancel the selection, press the **OK** button again.

3 To move to the cursor position on the option list, press the ◄/► button.

4 Select an option using the ▲/▼ button and press the **OK** button.

- **Play:** Plays the selected content.
- **Lock:** Locks the selected content. A Lock icon (🔒) will appear at the left of the content.
- **Delete:** Deletes the selected content.
- **Sort:** Sorts contents by Name, Time, Date & Time, or Channel.
- **Rename:** Renames the selected content. (See page 38 for use of the keypad.)
- **Edit:** Edits the selected content for modification. For more details, see pages 36-37 for the use of it.

Note:

To move the position on the play list, press the ◄/► button. To stop playing, press the **STOP(■)** button. When you press it again, a Play list menu will appear.

■ Record Duration

You can set the duration time for recording.

Select **Record Duration** using the ▲/▼ button and press the ◄/► button to set the value. The range of the record duration is 1 minute to 1200 minutes. When the time exceeds the duration, the recording stops automatically.

■ Timeshift Duration

You can set the time shift duration.

Timeshift function is very useful when you are interrupted during watching TV by phones, visits, and the like. For instance, if you have something to do, press the **PLAY/PAUSE(►/❚❚)** button, then the current live channel will be stilled. The DMC can store lapsed scenes for up to 600 minutes. You can catch up with the live channel by pressing the **FF(►►)** button.
Select **Timeshift Duration** using ▲/▼, then press the ◄/► to set the value.
The timeshift duration time range is 1 minute to 600 minutes.

■ Auto Timeshift

You can set the auto timeshift function to **On** or **Off**.

Select **Auto Timeshift** using the ▲/▼ button and press the **OK** button.

- **On:** The Timeshift function temporarily stores scenes for searching whenever you watch a live channel.
- **Off:** The Timeshift function works only when you press the **PLAY/PAUSE(►/❚❚)** button for the current live channel.

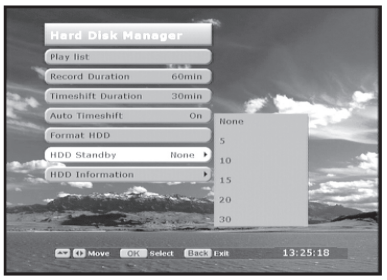
■ Format HDD

You can format the built-in HDD of your DMC. After formatting is finished, all the saved programmes are removed

1 Select **Format HDD** using the ▲/▼ button and press the **OK** button.
The password input box will appear.

2 Enter your 4-digit password using **NUMERIC** buttons to start formatting.

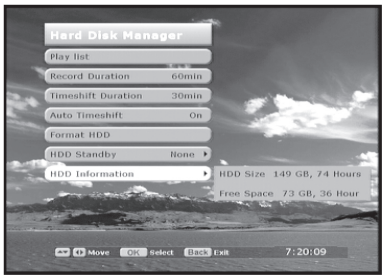
■ HDD Standby



You can set your HDD to switch to standby after a preset interval.

Select **HDD Standby** using the ▲/▼ button and press the ◄ /► button to set the time value.
The HDD Standby time range is 5 minutes to 30 minutes.

■ HDD Information



You can check your HDD information such as total size, total recordable time, free space, and remaining recordable time.

Select **HDD information** using the ▲/▼ button.
Then the related information will appear.

In this menu, you can manage the DVD media. The recordable disc (DVD-R, DVD-RW) must be loaded in your DMC before using this function.

1 Press the **MENU** button.

2 Select **DVD Manager** using the ▲/▼ button and press the **OK** button.
The DVD Manager menu will appear.

3 To exit, press the ↶ **(EXIT)** button.

■ Burning DVD-Copying from HDD to DVD

You can copy the programmes recorded in HDD to a DVD.

1 Select **Burn DVD** using the ▲/▼ button and press the **OK** button.
The Burn DVD menu will appear.

2 Select a recorded programme you want to copy using the ▲/▼ button and press the **OK** button.
A check mark (✓) will appear.

Note:
To cancel the selection, press **OK** again.

You can copy programmes up to 4,700MB at a single-side disc.

3 To move to the option list, press the ◄/► button.

4 Select **Burn DVD** using the ▲/▼ button and press the **OK** button.

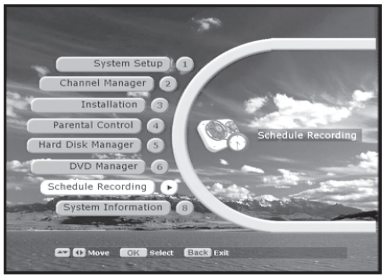
Note:
When you insert a (re-)writable DVD disc into the tray, the disc is automatically formatted. After the recording completes, the disc is automatically finalised.
You can sort and rename the recorded programmes on this menu. (See page 38).

5 To exit, press the ↶ **(EXIT)** button.

■ PBC (Play Back Control) for VCD

If a Video CD is encoded with the playback control by setting the PCB to **On**, a menu screen appears after the disc is loaded.

Select **PBC** using the ▲/▼ button and press the ◄/► button to select **On**.



You can add, edit, or delete the reserved programmes on the schedule recording list.

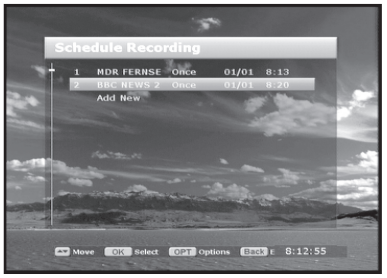
For this control,

1 Press the **MENU** button.

2 Select **Schedule Recording** using the ▲/▼ button and press the **OK** button.
The Schedule Recording menu will appear.

3 To exit, press the ↶ **(EXIT)** button.

■ Add New-Adding a New Schedule Recording



You can add a programme you want to reserve a scheduled recording.

1 Select **Add New** using the ▲/▼ button and press the **OK** button.
The Add New menu will appear.

2 Select a desired item using the ▲/▼ button and press the ► or **OK** button.

Event Type

You can select an event type out of **HDD Record**, **DVD Record**, **Wakeup**, **Standby**, **Lock**, and **Memo**.

- **HDD Record:** Reserved programme will be recorded to the HDD.
- **DVD Record:** Reserved programme will be recorded to the DVD.
- **Wakeup:** Reserved programme will be just turned on without recording.
- **Standby:** Reserved programme will be inactivated.
- **Lock:** Reserved programme will be locked.
- **Memo:** Your message will appear on the screen.
- **Ext. To HDD Record**: The programme on the external equipment will be recorded to the HDD.
- **Ext. To DVD Record**: The programme on the external equipment will be recorded to the DVD.

Note:

Menu items shown below vary depending on the event type.

Channel

You can select a desired channel to add a new schedule recording.

Select **Channel** using the ▲/▼ button and press the **OK** button.
A Channel list will appear.

- ◄/►**:** Changes between all channel lists and Favourite channel lists.
- ▲/▼**:** Moves the highlight bar to select a channel.
- **OK:** Confirms.

Mode

You can select schedule recording mode of reruns.

1. Select **Mode** using the ▲/▼ button and press the ► or **OK** button.

2. Select a desired option out of **Once**, **Daily**, and **Weekly**, using the ▲/▼ button and press the **OK** button.

Time

You can set the time for starting the recording.

Select **Time** using the ▲/▼ button and press the **OK** button.

- ◄/►**:** Goes to hour, minute, day, month, and year.
- ▲/▼ or **0~9:** Sets the time and date.
- **OK:** Confirms the setting.

Date

You can set the date for starting the recording.

Select **Date** using the ▲/▼ button and press the **OK** button.

- ◄/►**:** Goes to hour, minute, day, month, and year.
- ▲/▼ or **0~9:** Sets the time and date.
- **OK:** Confirms the setting.

Duration

You can set the duration for the recording.
Select **Duration** using the ▲/▼ button and press the ◄/► button to set the value.
The duration range is 5 minutes to 20 hours.

Note:

You can input the duration time directly by pressing **OK** and **NUMERIC** buttons. The direct input range is 5 minutes to 1200 minutes.

Free Space

Check the remaining recordable time in **Free Space**.

Note:

This is information only.

Entering Memo Title

To type your message to display on the recorded screen,

1. Select **Memo Title** using the ▲/▼ button and press the **OK** button.
2. To enter your message, select characters using the ▲/▼/◄/► buttons and press the **OK** button.
   - ↶**(EXIT):** Cancels the input.
   - **OK:** Completes the input.
   - **Delete:** Deletes the last character.

Confirming Add New

Select **OK** using the ▲/▼ button and press the **OK** button.

You can check system versions and upgrade the software. This DMC uses system software that enables easy upgrades to the latest released version.

1 Press the **MENU** button.

2 Select **System Information** using the ▲/▼ button and press the **OK** button.
The System Information menu will appear.

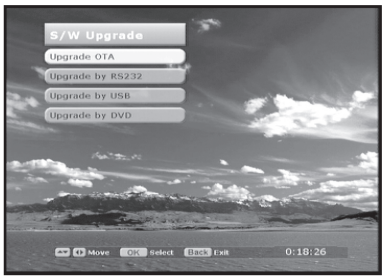
3 To exit, press the ↶ **(EXIT)** button.

■ Checking the System Version of your DMC.

You can check system versions for Application, Boot Loader, and Hardware.

Note:
This is information only.

■ Upgrading System Software



Software can be upgraded by Over-the-Air (OTA), RS-232, USB, and DVD.

Select **S/W Upgrade** using the ▲/▼ button and press the **OK** button.
The S/W Upgrade menu will appear.

Upgrade OTA (Over-the-Air)

Software can be upgraded over broadcast signals in a broadcasting system. This way is very simple and easy. However it all depends on the broadcasting signal.

Just select **Upgrade OTA** using the ▲/▼ button and press the **OK** button.

Upgrade by RS-232

Software can be upgraded by computer using an RS-232 serial cable.

1. Download the system software of your DMC from the Radix website.
2. Connect an RS-232 serial cable between your DMC and computer.
3. Select **Upgrade by RS-232** using the ▲/▼ button and press the **OK** button.

Note:

For software upgrade, please access the following websites: http://www.radixworld.com/korean/product/download.asp, http://www.radix-sat.de

Upgrade by USB

Software can be upgraded using the software "DMC Linker."

1. Download the system software of your DMC from any of Radix websites mentioned above.
2. Copy the system software from your computer to your DMC using the software.
3. After copying the file completes, restart your DMC by turning off and on.
4. Select **Menu** → **System Information** → **Software Upgrade** → **Upgrade by USB** and press the **OK** button.

Upgrade by DVD

Software can be upgraded using a DVD or CD disc.

1. Download the system software of your DMC from any of Radix websites mentioned above.
2. Burn the system software using your computer to a recordable DVD or CD disc.
3. Load the burn disc on your DMC.
4. Select **Upgrade** with the DVD inserted, then press the **OK** button.

■ Troubleshooting

Digital communications simultaneously involve the transfer and process of a large amount of data.

Changing channels may take longer in comparison to analogue devices.

Problem	Solution
No Video	• Channel data is changed—Execute re-installation or Manual/Auto Channel Searching (Refer to the user's guide for more details) after checking antenna cable connection & signal quality.
No Audio	• Check audio mute controls—Check the audio language; Press the **AUDIO** button and try to change the language or change main audio language on the general settings menu.
Fail to Boot DMC	• Reapply AC power—Contact our A/S center if this problem occurs continuously.
Fail to Search Channel	• Check the antenna cable connection.
Screen Shows No Signal Continuously	• Check the antenna cable connection.
Video Freeze	• Bad signal stream or channel; Move to another channel. • Reapply AC power.
Remote Control does not Respond	• DMC could be interfered with noise from other electric home appliances. Put the DMC in some other place. • Check if the batteries are drained.
Fail to Catch the Preprogrammed Channel	• Execute the re-installation process or Manual/Auto Searching.
No OSD Menu	• Check the SCART cable; Make sure it is connected to your DMC and TV properly.
Fail to Download through RS-232 Serial	• Check the RS-232 serial cable and its connection.

■ Recycling and Disposal

Please dispose of your device, packaging such as polystyrene, and all batteries in accordance with your local regulations and recycle wherever if possible. Follow all relevant regulations and dispose of the materials at proper locations. Consult the relevant regulations available from your local environmental protection agency or similar.

■ Specifications

Tuner / Front-End Demodulator

RF1,2 Input Frequency	174MHz~230MHz, 470MHz~862MHz
RF1,2 Loop through outpu	47 ~ 862MHz
Input Impedance	75ohms
Input Signal Level	-80dBm ~-20dBm
Channel Bandwidth	7MHz, 8MHz
Demodulation According	DVB-T
Type	COFDM 2K, 8K
Mode	QPSK, 16QAM, 64QAM
Viterbi Decoding Rate	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval Modes	1/32, 1/16, 1/8, 1/4 active symbol duration
Reed Solomon Decoding	FEC: 204, 188, t=8

Transport Demultiplexer

Demultiplex	According to ISO/IEC 13818-1
Max. Input Stream	60MHz(Serial)/7.5MHz(Parallel)
SI Filtering	According to DVB-SI spec (ETS 300 468)

Video Decoding Parameters

Video Decoding	ISO/IEC 13818-2 MP@ML
Aspect Ratio	4:3, 16:9, 4:3LB, 4:3PS
Resolution	Max.720 x 576

Audio Decoding Parameters

Audio Decoding	ISO/IEC 13818-3 Layer I & II
Operating mode	Mono, Stereo, Dolby AC3
Sampling Frequency	32, 44.1, 48, 96kHz

Supporting Disc Media

Recording	DVD+RW, DVD+R
Playback	DVD-Video, DVD-R, DVD-RW, DVD+RW, DVD+R, VCD, S-VCD, CD-DA, CD-R, CD-RW, CD-ROM

Baseband Video/Audio Output

Video Output Impedance	75ohms
Video Output Level	1Vp_p
Audio Output Impedance	600ohms Unbalanced
Audio Output Level	3.0Vp_p With Volume Control

Front Panel

VFD Display	Channel Numbers Display
8 Buttons	Power, Up, Down, Left, Right, OK, Menu, Exit
IR Sensor	38kHz
Ext, A/V Inputs	CVBS, S-Video, Audio L/R

Rear Panel

RF1 Input	FEMALE
RF1 Loop through Output	MALE
RF2 Input	FEMAIL
RF2 Loop through Output	MALE
RF Modulator	ANT Input, TV Output
3 SCART	TV, VCR, AUX
RCA Output	Composite Video, Component Video
	Stereo Audio (Left, Right)
	Digital Audio (S/PDIF)
Digital Audio Output	Optical
S-VIDEO Output	S-VIDEO
RS232 Serial Port	9 Pin D-male Type
Remote Eye	IR Sensor
Power Cord	Europe Flexible Cord

Remote Control Unit

Type	IR (Carrier Freq. 38KHz)
Battery	2 x 1.5V (AAA Size)

General Data

Input Power Voltage	AC 95 ~ 250V, 50/60Hz
Power Consumption	Max. 30Watts (Standard)
Dimension (W X D X H)	340 x 255 x 69mm
Weight	5kg
Operation Temperature	0 ~ 40 Deg.

■ Supportable DVD Writable Media

DVD+R Media

No	MEDIA	SPEED	MANUFACTURE ID	MEDIA ID
1	MITSUBISHI	2.4x	MCC	001
2	Verbatim	2.4x	MCC	001
3	RICOH	2.4x	RICOHJPN	R00
4	Ridata	2.4x	RICOHJPN	R00
5	DATA CUBE	2.4x	RICOHJPN	R00
6	SONY	2.4x	RICOHJPN	R00
7	Imation	2.4x	RICOHJPN	R00
8	REX	2.4x	BEALL P0	001
9	Beall	2.4x	BEALL P0	001
10	cyberstore	4x		001
11	cymarlong	4x		001
12	B-spot	4x		001
13	Banana	4x	MEDIA ID	001
14	Matrix	4x	MEDIA ID	001
15	Melody	4x	MEDIA ID	001
16	Risheng	4x	MEDIA ID	001
17	Risheng	4x	VDSPMSAB	001
18	OPTO	4x	OPTODISC	OP1
19	TAIYO YUDEN	4x	YUDEN000	T01
20	RITEK	4x	RITEK	R02
21	PHILIPS	4x	RITEK	R02
22	GIGA	4x	GSC502	002
23	STARVIEW	4x	VDSPMSAB	001
24	MITSUBISHI	4x	MCC	002
25	HP	4x	MCC	002
26	CURSOR	4x	GSC502	001
27	HP	4x	CMC MAG	F01
28	Philips	4x	CMC MAG	F01
29	Memorex	4x	CMC MAG	F01
30	BEALL	4x	BeAll000	P40

No	MEDIA	SPEED	MANUFACTURE ID	MEDIA ID
31	SKC	4x	BeAll000	P40
32	INFODISC	4x	INFODISC	R10
33	RICOH	4x	RICOHJPN	R01
34	BenQ	4x	DAXON	AZ1
35	Aotian	4x	IS01	001
36	Bulkpaq	4x	IS01	001
37	VERBATIM	4x	MCC	002
38	RICOH	8x	RICOHJPN	R02
39	BenQ	8x	DAXON	AZ2
40	That's	8x	YUDEN000	T02
41	Fusion	8x	YUDEN000	T02
42	M-star	8x	YUDEN000	T02
43	FUJIFILM	8x	YUDEN000	T02
44	OPTODISC	8x	OPTODISC	OR8
45	Melody	8x	PRODISC	R03
46	VERBATIM	8x	MCC	003
47	SUNNY	8x	MCC	003
48	CMC	8x	CMC MAG	E01
49	RiDATA	8x	RITEK	R03
50	RITEK	8x	RITEK	003
51	Digitank	8x	INFOME	R20
52	Maxell	8x	MAXELL	002
53	TDK	8x	CMC MAG	E01
54	Nexxtech	8x	CMC MAG	E01
55	TDK	16x	TDK	003
56	VERBATIM	16x	MCC	003
57	MAXELL	16x	MAXELL	003
58	RITEK	16x	RITEK	004
59	FUJIFILM	16x	PRODISC	R05

DVD-R Media

No	MEDIA	SPEED	MANUFACTURE ID
1	SONY	4x	SONY04D1
2	CMC	4x	CMC MAG. AF1
3	qing hua za guang	4x	CMC MAG. AF1
4	Imation	4x	CMC MAG. AF1
5	LG	4x	LGE04
6	MAXELL	4x	MXL RG02
7	SKC	4x	SKC Co.,Ltd.
8	MDA	4x	SKC Co.,Ltd.
9	TRONO	4x	SKC Co.,Ltd.
10	Melody	4x	SKC Co.,Ltd.
11	MITSUBISHI	4x	MCC 01RG20
12	NEMOMAX	4x	PVCR001002
13	BEALL	4x	BeAll G40001
14	REX	4x	BeAll G40001
15	RITEK	4x	RITEKG04
16	RITEK	4x	RITEKM02
17	OPTODISC	4x	OPTODISCR004
18	TAIYO YUDEN	4x	TYG01
19	V-star	4x	TYG01
20	VERBATIM	4x	MCC 01RG20
21	cyberstore	4x	PRINCO
22	PRINCO	4x	PRINCO
23	Risheng	4x	VDSPMSAB 01
24	Banana(Guo shi digital)	4x	AN31
25	Aotian	4x	AN31
26	Melody	4x	GSC001
27	e3works	4x	GSC001
28	SONY	8x	SONY08D1
29	CURSOR	8x	GSC003
30	M-star(TAIYO YUDEN)	8x	TYG02
31	B-spot	8x	TYG02
32	PRODISC	8x	ProdiscF01
33	Melody	8x	ProdiscF01
34	MITSUBISHI	8x	MCC 02RG20
35	FUJIFILM	8x	FUJIFILM03

No	MEDIA	SPEED	MANUFACTURE ID
36	RITEK	8x	RITEKG05
37	MAXELL	8x	MXL RG03
38	CMC	8x	CMC MAG. AE1
39	HP	8x	CMC MAG. AE1
40	Philips	8x	CMC MAG. AE1
41	VERBATIM	8x	MCC 02RG20
42	MAXELL	16x	MXL RG04
43	TDK	16x	TTH02
44	FUJIFILM	16x	Prodisc F02

DVD+RW Media

No	MEDIA	SPEED	MANUFACTURE ID	MEDIA ID
1	SKC	2.4x	OPTODISC	OP1
2	Samsung digitall	2.4x	OPTODISC	OP1
3	Melody	2.4x	CMC MAG	W01
4	MITSUBISHI	2.4x	MCC	A01
5	Acer	2.4x	MCC	A01
6	TDK	2.4x	MCC	A01
7	RICOH	2.4x	RICOHJPN	W01
8	INFODISC	2.4x	INFODISC	A01
9	RICOH	2.4x	RICOHJPN	R02
10	RITEK	2.4x	RITEK	001
11	BENQ	4x	DAXON	D42
12	CYBERSTORE	4x	INFODISC	A10
13	Digitank	4x	INFODISC	A10
14	PHILIPS	4x	PHILIPS	041
15	Mr. Data	4x	PHILIPS	041
16	HP	4x	PHILIPS	041
17	Samsung pleomax	4x	OPTODISC	OP4
18	Risheng	4x	OPTODISC	OP4
19	SONY	8x	SONY	S11
20	MITSUBISHI	4x	MKM	A02

No	MEDIA	SPEED	MANUFACTURE ID	MEDIA ID
21	RITEK	4x	RITEK	004
22	Melody	4x	NANYA	DRW
23	RICOH	4x	RICOHJPN	W11
24	Ridata	4x	RICOHJPN	W11
25	Data cube	4x	RICOHJPN	W11
26	Liteon	4x	RICOHJPN	W11
27	Imation	4x	RICOHJPN	W11
28	TDK	4x	RICOHJPN	W11
29	FUJIFILM	4x	DAXON	D42
30	SONY	4x	RICOHJPN	W11

DVD-RW Media

No	MEDIA	SPEED	MANUFACTURE ID
1	VICTOR	2x	JVC_VictorW7
2	Imation	2x	OPTODISCW002
3	Melody	2x	OPTODISCW002
4	SKC	2x	OPTODISCW002
5	TDK	2x	TDK502sakuM3
6	PRODISC	2x	Prodisc DW04
7	PRINCO	2x	PRINCO
8	MITSUBISHI	2x	MCC 01RW11n9
9	Philips	2x	RITEKW01
10	Melody	2x	CMCW02
11	FUJIFILM	2x	RITEKW01
12	MITSUBISHI	4x	MCC 01RW4X
13	CMC	4x	CMCW02
14	cyberstore	4x	INFOMEDIA
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